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3rd Art and Science International Exhibition and Symposium Beijing, 2012 (Part 2 of 2)

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Through demonstration of cutting-edge explorations in world and domestic art and science as well as related academic discussions, the 3rd Art and Science International Exhibition and Symposium (Tsinghua University, Beijing, 2012) aimed to reveal the inherent relationship between art and science, broadening research and enhancing levels of innovation. In the information era, the changing fields of science and technology propel human society forward, while ecological innovators point toward a sustainable evolution of human lifestyles and human intelligence carries out grand humanistic ideals with innovative values. From the perspectives of information science, life science and ecological science, the exhibition and symposium, integrated with existing diverse ideas and art forms and carried by artistic esthetics, bio-information technology and ecological intelligence, focused on the ultimate ideals and spirit of human beings, exploring the unknown and creating the future with new thoughts and methods.

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RE-IMAGINING UTOPIAS: THE BAT/HUMAN PROJECT

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Abstract

The making of the modern world has long been fuelled by utopian images that are blind to ecological reality. Botanical gardens are but one example – who typically portray themselves as miniature, isolated 'edens on earth', whereas they are now in many cases self-evidently also the vital 'lungs' of crowded cities, as well as critical habitats for threatened biodiversity. In 2010 the 'Remnant Emergency Art lab' set out to question utopian thinking through a creative provocation called the 'Botanical Gardens 'X-Tension' – an imagined city-wide, distributed, network of 'ecological gardens' suited to both bat and human needs, in order to ask, what now needs to be better understood, connected and therefore ultimately conserved.

Introduction

The futurist imagination of the modern world and its plethora of materialised institutions have long purveyed and pursued utopian visions, based upon pervasive desires to achieve "perfection on earth" through the power of human creation. Tony Fry writes, "This disposition towards the future and the power of the dream has been present from the very inception of the Enlightenment-inspired modernist project and its dream of one world, one subject" [1].

This utopic imagination manifests in many forms; for example in the endless upgrading of consumer goods or in plans to terraform neighbouring planets. We pursue these utopian visions in ignorance, denial, or in spite of their profoundly destructive consequences: Five hundred years of experience, the extraordinary waste of mass consumer culture and the onset of human-induced climate chaos has done little to dent our core enthusiasm for the unattainable. And because this utopic thinking is so endemic it remains largely unchallenged, tacitly influencing our organisational and philosophical frameworks and manifesting in the policies and priorities of our political, cultural and environmental institutions. Until we begin to confront utopic thinking we risk becoming the ultimate victims of the unsustainable desires that they promote.

In this paper I detail a recent, creative initiative called the Remnant Emergency Artlab, which set out to think through, challenge, expose and propose alternatives through a series of creative provocations.

Utopian Environments

Two such utopic narratives that have long underpinned our conception of the environment can broadly be understood as that of garden and of wilderness. In *Re-inventing Eden*, Carolyn Merchant [2] contrasts these two endemic visions: One that imagines turning 'untamed' wilderness and 'uncontrolled nature' into states of cultivation and the other that aspires to the maintenance (or re-creation) of 'wildernesses' free from encroaching 'un-natural' orders.

Merchant suggests that we imagine gardens as places where biophysical systems are entirely brought under control (based, she asserts, upon the idealistic image of the Garden of Eden), a "story that has shaped Western culture since earliest times. . . . We have tried to reclaim the lost Eden by reinventing the entire earth as garden" [3]. She contrasts this with our conception of wilderness or wild places as being entirely free from human influence. William Cronon however and numerous commentators remind us that wilderness is "not a pristine sanctuary where the last remnant of an untouched, endangered, but still transcendent nature can for at least a little while longer be encountered without the contaminating taint of civilization. . . . Instead, it's a product of that civilization, and could hardly be contaminated by the very stuff of which it is made. Wilderness hides its unnaturalness behind a mask that is all the more beguiling because it seems so natural" [4].

Contemporary writers such as Timothy Morton [5] in 'Ecology Without Nature' also remind us of the very real connections between how we tend to configure our (utopic) thinking around a idealised conception of nature and the environment and how this profoundly and dangerously affects our on-the-ground thinking and actions.

Utopian Creative Practices

A parallel thinking has historically underpinned environmental debates, mirrored in the predominantly simplistic positioning and theorization of much ecological creative practice, which frequently speaks (without substantive evidence) of the capability of artistic production and reception to be potent 'triggers' for various modalities of 're-connecting' with 'nature'.

Indeed much, or maybe most 'eco' artist/activist language limits itself to similarly narrow biophysical definitions of

the meta ecological problems we face, also therefore failing to confront underlying utopic imaginaries.

The Remnant Emergency Artlab

It was my both my own longstanding history in environmentalism and activism and a longstanding frustration with these simplifications that led me to imagine and go on to collectively develop a new project called the Remnant Emergency Artlab (2010-12) [6] with a central objective to develop and create powerful, yet realistic images in the pursuit, presentation and promotion of pragmatic ecological futures: something that I asserted must be achieved through deep immersion within the particularities of local cultures and conversations, and that must engage with the realities of ecologies well beyond the biophysical. The project also pursued mixed strategies of education, creative problematisation and creative action in the context of art and design as tactics to expose, disassemble and reconsider a spectrum of utopic thinking that underpins contemporary unsustainability.

A Botanic Garden Case Study

In early 2010 I began to seek out a case study exemplar that would illuminate the utopic garden-wilderness spectrum. I discovered a potent case study in the institutional rhetoric of the Royal Botanical Gardens Sydney (RBGS) whose stated mission is to "inspire the appreciation and conservation of plants" [2].

They describe their venue as, "an oasis of 30 hectares in the heart of the city. Wrapped around Farm Cove at the edge of Sydney Harbour, the Royal Botanic Garden occupies one of Sydney's most spectacular positions. Established in 1816, our organisation is the oldest scientific institution in the country and home to an outstanding collection of plants from Australia and overseas" [2].

"The Gardens contain numerous historic and heritage listed specimens that are of enormous cultural, scientific, horticultural and educational value" [2]. Whilst Botanic gardens still have a significant and role in exploring, conserving and exploiting the world's flora and other environmental issues they are also now challenged by their diverse mandates of recreation, education, culture, conservation and research and by the needs of their living collections and their visitors [7].

The Bat-Human Problem

In 2010 the RBGS's utopic conception of their organized Eden was under attack from a number of non-human urban dwellers and visitors - notably an air-borne native mammal species: the Grey Headed Flying Fox – a nomadic, now endangered species of fruit bat which had long chosen the comfortable canopy of the gardens as a temporary roosting site, whilst traveling their long-distance eastern seaboard migration routes in pursuit of native pollen, nectar and fruits. Flying foxes are protected by Federal Australian law due to their critically threatened status. Their vulnerability is multi factorial, arising in part from broad-scale native habitat destruction, dispersal programs [8] and persecution by farmers and the equestrian industry [9]. Flying foxes are a keystone ecological species offering valuable ecosystem pollination and seed dispersal services to Australian native forests.

Clearly struggling with the many challenges of maintaining a garden free of these 'wild place' invaders the Royal Botanic Gardens stated plainly, "The Botanical Gardens Trust aims to present the living plant collection within the RBGS in good health and form, not stunted, deformed, or uncharacteristic of the taxon" [2].

The RBGS is home to a camp of Grey Headed Flying Foxes (GHFF) (*Pteropus Poliocephalus*) who roost in the trees of the Gardens. The camp is occupied year-round, and at its peak, over 20,000 flying foxes roost during the day in the RBGS. This use of the site is damaging and killing the most significant trees, and has

become unsustainable and inconsistent with the goals of the Botanic Gardens Trust (BGT).

Without strong intervention by BGT to reduce or prevent Grey Headed Flying Foxes from roosting in these trees, the loss of large numbers of trees of great scientific, historic and social significance will continue to occur [2].

And so, after years of experimental attempts to shift the bats by 2010 the Botanical Gardens Trust had applied for, and received, a Federal Government injunction to sweep the endangered flying fox colony out of their extensive grounds.

The objective of this project is to relocate the entire camp and not allow any further roosting [2].

The conservation movement's response to the garden's attempts to remove the bats (and re-claim their utopic Eden) was similarly unequivocal – establishing this ecological problem in traditionally oppositional terms (stated simply as garden vs. wilderness). Bat advocacy organizations, scientists and traditional environmental institutions such as the Wilderness Society and other concerned public lined up to attack the plan. For example, Bat Advocacy NSW wrote in a critique of the Royal Botanic Garden's draft Public Environmental Report that the project is fatally flawed. It is not possible to disperse the colony of Grey Headed Flying Foxes from RBGS, a roosting habitat that is critical to the species' survival, without there being a significant impact on a federally listed threatened species [10].

Press releases from environmental advocacy organizations were similarly couched, highlighting the essential defence of the two utopian positions under consideration – on one hand the conception of a garden that might be made free from the unwanted incursions of certain wildlife and on the other the stated necessity to protect (urban vestiges) of wild places for the benefit of a species in transit between other more authentic wilderness locations.

The 'Bat/Human Project' (Fig. 1) was therefore conceived at this electric moment, giving us a basis from which to ask, What kind of realistic ecological discussions do we now need to have and what relationships do we now need to foster between ourselves and these other critical co-dwellers of our urban ecologies?

From the outset we were very clear that we should not set ourselves directly in opposition to the Garden's position or locate ourselves in unequivocal support of the anti-relocation voices - because the aims of the project were to look beyond these utopian positions and attempt to open up a creative space for dialogue and debate amongst and in between parties. Critically therefore we elected to directly incorporate the position and thinking of the Botanical Gardens Trust within our ongoing process.

Project Objectives

The Artlab team (see www.remnantartlab.com/team/) convened in November 2010 in Sydney for an intensive two-week residency. The first phase of the residency involved extensive briefing and discussions during which we convened a three-day seminar with a panel of invited expert speakers and a group of multidisciplinary participants/informants from the Sydney community - the objective being to tease out the biophysical, cultural, institutional and utopian dimensions of the problem we had chosen to confront. We were given a detailed background of the problem from the perspective of bat ecology, from members of the proposed relocation's scientific monitoring team, from an expert in the philosophy and conception of environment-based institutions and from a 'wildlife management officer' from the Botanical Gardens - in charge of undertaking the flying fox relocation.

During this time the possibility of imagining win-win scenarios formed the central base of our creative discussions, work-shopping and actions, allowing us to drill down into the problem and iden-

Fig.1. Image from The Bat/Human Project, Cook and Phillip Park, Sydney, April 7-30, 2011. (© Keith Armstrong. Photo © Nick Edards.)



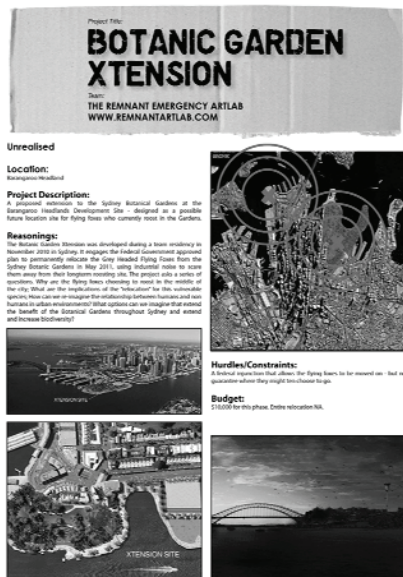
tify the limitations, needs and capacities of all parties.

Of the many ideas countenanced, the creation of an artificial roosting territory in place of the gardens site appeared to be a strategy that both gardens and the conservation groups could potentially accept.

We were also strongly influenced by some of the work and ideas of lead artist Natalie Jeremijenko (who collaborated with us during that time). Working with humour, direct action, citizen science and social networking Natalie had historically used constructs as diverse as tadpole bureaucrats to allow citizens to test water quality and DIY experiences of flight using flying fox/zipline technologies [11]. At that stage she was working with a network of portable grow bag technologies, typically hung off city-wide balconies. Building upon this idea of distributed plantings we began to consider a re-conception of the Botanical Gardens that moved beyond the RBGS's apparent vision of an isolated Eden at harbour's edge, or indeed conceptions of the site as the only local possibility for wild bat roosting. The idea ultimately developed into a citywide network of 'botanical gardens' which we called the 'Botanic Gardens X-tension' – a speculative win-win for bats and for both sides of the utopian divide.

At that time Sydney was engaged in a major urban redevelopment at a site called Barangaroo, south of the Sydney

Fig.2. From Urbanism-Sydney Reconsidered, curated by Joni Taylor, as part of the larger, The Right to the City exhibition, at the Tin Sheds Gallery, Sydney. (© Keith Armstrong. Photo © Nick Edards.)



Harbour Bridge, which was planned to incorporate a major new parkland complex. As it was situated in perfect proximity to the Gardens across the Harbour, we therefore imaged the idea of the Barangaroo Botanical Gardens X-tension as the first node in the broader network of garden nodes.

Our design incorporated artificial perch elements, rapidly growing native vegetation and a visitor/bat observation system, rendering the site both educational, interpretative and whimsically speculative. We developed this proposal as a future scenario via a short film [12] and online at the Barangaroo Xtension website. The ideas were further promulgated in a subsequent major public event called the 'Bat-Human Project' [12], presented in Cook and Phillip Park in central Sydney in mid-2011 as well as through the exhibition DIY Urbanism-Sydney Reconsidered, curated by Joni Taylor, as part of the larger, 'The Right to the City' exhibition, at the Tin Sheds Gallery, Sydney (Fig. 2).

Utopian Reflections

Given that our roles were as artists, architects and provocateurs, the subsequent steps to formally propose and actually move towards realizing such ideas fell way beyond the project scope. Nonetheless our ideas were initially received warmly by the both the RBGS relocation officer and the PA to the executive director on the opening night of the showing at UTS Gallery, leading to an offer of a tentative re-showing of the work at a gallery space in the Botanic Gardens itself [13]. At that point in time we understood that our inclusive process and thinking may have found some relative purchase on both sides of the utopian divide, creating a transverse bridging through a type of pragmatic thinking that neither side had countenanced – whilst also gently exposing the inherent creative destruction that accompanies utopian leanings.

Conclusions

As stated, the intention of our project was to develop and curate a propositional outcome that avoided both the often uncritical actions of environmental movements or ecological artists, to instead attempt to render some of the profounder and therefore much more invisible problems of static utopianism visible, in a way that directly acknowledged our collective responsibility, rather than rendering the problem as an

externality disconnected from our own lives and practices. By seeking to face underlying causes bubbling under the surface, we therefore sought to develop practical imaginaries – outcomes that might communicate through new creative practices a deeper, broader picture – even if in themselves these may be speculative or experiential.

Postscript

In May 2010 a second one-year delay of the planned flying fox relocation was announced, most likely relating to the lack of ethics approval for the specific monitoring processes surrounding the relocation. In the following year the dispersal began in earnest and was continued nightly causing the colony to split and relocate, including to a less suited but nonetheless reasonable site at Centennial Park. Whilst disappointed, we remain clear that acts of positive public pressure in pursuit of an anti-utopian thinking must continue to play their role in the complex ecology of thought action and interaction that ultimately influences our decision makers. Nonetheless, disassembling the deeply-held tenets of unsustainable thinking such as utopic conception will never be anything like as simple or rapid as some proponents of the 'ecological art' movement might have us believe.

References and Notes

- * This article is based on a paper presented at the 3rd Art and Science International Exhibition and Symposium, 1--3 November 2012, Tsinghua University, Beijing, P.R.C.
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2. Botanic Gardens Trust Sydney, Public Environmental Report. Proposed Relocation of a Camp of Grey Headed Flying Foxes (*Pteropus Poliocephalus*) from the Royal Botanic Gardens Sydney, R. B. G. M. Australian Research Centre for Urban Ecology (ARCUE), Sydney, 2009.
3. Merchant, C., *Reinventing Eden, The Fate of Nature in Western Culture* (New York & London, Routledge, 2004).
4. Cronon, W., "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in W. Cronon, *Uncommon Ground: Rethinking the Human Place in Nature*. (New York: W. W. Norton & Co, 1995).
5. Morton, T., *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge, Mass.: Harvard University Press, 2007).
6. A remnant is something that remains when the majority of that something has been lost.
7. Forbes, S., "How Botanic Gardens Changed the World," in *History and Future of Social Innovation Conference*, University South Australia, 2008.
8. A precursor to the attempted dispersal in Sydney was the dispersal of a large colony from the Melbourne Botanical Gardens which was promoted as a success.

9. In Queensland the Hendra virus which has affected a very small number of horses is routinely attributed upon flying foxes alone, despite the transmissive link not yet being clearly proven. A horse vaccine was released in 2012.

10. Edards, N., Flying Fox relocation PER Feedback. Crows Nest, Bat Advocacy NSW, 2009.

11. Jeremijenko, N., (1999) "X-Clinic." <www.environmentalhealthclinic.net> accessed 13 March 2013.

12. The Bat Human Event, <<http://www.remnantartlab.com/the-bat-human-event>>, accessed 13th March 2013.

13. In this case the team decided not to pursue this option in case our work was misrepresented in that context.

14. Council, S.C.R. Creative Communities Sunshine Coast 2010-2015, Discussion Paper. Sunshine Coast MC, 2010.

15. Jeremijenko, N., (2010) "Farmacy Project" X Clinic: The Environmental Health Clinic and Lab, <environmentalhealthclinic.net/farmacy> accessed 13 March 2013.

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17. Remnant Emergency Artlab Video Archive, <<http://vimeo.com/17506825>>, accessed 13 March 2013.

ANNOUNCING

Leonardo Art Science Evening Rendezvous (LASER)

The Leonardo Art Science Evening Rendezvous (LASER) speaker series is celebrating its sixth year in 2014. Over the past six years, the LASER series of lectures and presentations on art, science and technology has provided spaces for progressive thought leaders to come together to form community and explore the intersections of disciplinary thinking. Owing to its success and popularity, LASER has expanded beyond its birthplace in the San Francisco Bay Area, first to the U.S. East Coast, then across the Atlantic to London—the home of the first European LASER—and has found its newest home at the University of Texas, Austin. We thank all of those who have spoken at, participated in or attended LASER events throughout the years. We owe a special thank you to Piero Scaruffi, LASER founder and chair, for his inspiration and continued dedication, and to the growing list of LASER hosts all over the world. To follow LASER events see <www.leonardo.info/isast/laser.html>.